Serial No. 09/147,574

a first resistor connected between the terminal and a gate of the corresponding semiconductor device;

a circuit segment including a voltage gate controlled switch and a second resistor connected in series, the circuit being connected in parallel to the first resistor;

a capacitor connected between a gate of the voltage gate controlled switch and the collector of the corresponding semiconductor device for monitoring a collector voltage signal of the corresponding semiconductor device;

a voltage clamping means connected between the gate of the voltage gate controlled switch and the terminal, whereby, in operation, the first resistor limits gate current of the corresponding semiconductor device prior to a drop of the collector voltage signal thereby limiting rise time of the collector current, and whereby, in operation, the first and second resistors limit the gate current of the corresponding semiconductor device during said drop of the collector voltage thereby limiting dropping time of collector voltage.

18. A power converting module according to claim 16, wherein said semiconductor devices are gate capacitance controlled semiconductor devices, and wherein each of the drivers includes:

a terminal to receive a gate signal for the corresponding semiconductor device;

a first resistor connected between the terminal and a gate of the corresponding semiconductor device;

a circuit segment including a voltage gate controlled switch and a second resistor connected in series, the circuit being connected in parallel to the first resistor;

a capacitor connected between a gate of the voltage gate controlled switch and the collector of the corresponding semiconductor device for monitoring a collector voltage signal of the corresponding semiconductor device;

a voltage clamping means connected between the gate of the voltage gate controlled switch and the terminal, whereby, in operation, the first resistor limits gate current of the corresponding semiconductor device prior to a drop of the collector voltage signal thereby limiting rise time of the collector current, and whereby, in operation, the first and second

Serial No. 09/147,574

resistors limit the gate current of the corresponding semiconductor device during said drop of the collector voltage thereby limiting dropping time of collector voltage.

- 19. A power converting module according to claim 2, 3, 4, 16, 17 or 18 comprising a control board for controlling the power semiconductor devices, the control board being located between the base onto which the power switching elements are mounted and the decoupling means.
- 20. A power converting module according to claim 1, 2, 3, 4, 16, 17 or 18, further comprising walls made of conductive material for closing open ends of the belt-like current closed loop, each of the open ends being delimited by edges of the central plate, of the lateral metal plates and of the lateral metal walls and by a lower edge of the superimposed metal plates whereby, in operation, an electric current is magnetically induced into the conductive walls to further reduce voltage spikes associated to stray interconnection inductance.
- 21. A power converting module according to claim 1, 2, 3, 4, 16, 17 or 18, further comprising a housing including conductive walls surrounding the reduced cross section belt-like current closed loop, whereby, in operation, an electric current is magnetically induced into the conductive walls to further reduce voltage spikes associated to stray interconnection inductance.
- 22. A power converting module according to claim 21, wherein at least one of the conductive walls of the housing are formed by a metal deposition over insulating walls.
- 23. A power converting module according to claim 21, wherein the conductive walls of the housing are made of at least two parts connected together.
- 24. A power converting module according to claim 22, wherein the conductive walls of the housing are made of at least two parts connected together.

Serial No. 09/147,574

- 25. A power converting module according to claim 21, further comprising a capacitor connected between the conductive walls of the housing and one DC terminal, the conductive walls providing one connecting point for electrical connection purpose.
- 26. A power converting module according to claim 22, further comprising a capacitor connected between the conductive walls of the housing and one DC terminal, the conductive walls providing one connecting point for electrical connection purpose.
- 27. A power converting module according to claim 23, further comprising a capacitor connected between the conductive walls of the housing and one DC terminal, the conductive walls providing one connecting point for electrical connection purpose.
- 28. A power converting module according to claim 25, wherein the capacitor is formed by a wall of the conductive walls that is adjacent to a top electrode plate of the decoupling means, and that is separated from the top electrode plate by means of dielectric material.
- 29. A power converting module according to claim 26, wherein the capacitor is formed by a wall of the conductive walls that is adjacent to a top electrode plate of the decoupling means, and that is separated from the top electrode plate by means of dielectric material.
- 30. A power converting module according to claim 27, wherein the capacitor is formed by a wall of the conductive walls that is adjacent to a top electrode plate of the decoupling means, and that is separated from the top electrode plate by means of dielectric material.
- 31. The combination of three power converting modules according to claim 1, 2, 3, 4, 16, 17, 18, 22, 23, 24, 25, 26, 27, 28, 29 or 30, in a motor wheel provided with a stator frame supported by a cross member made of conductive material, wherein the three modules